(19) RÉPUBLIQUE FRANÇAISE

INSTITUT NATIONAL
DE LA PROPRIÉTÉ INDUSTRIELLE

PARIS

(11) N° de publication : **2 582 210**
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(21) N° d'enregistrement national : **85 07852**

(51) Int Cl⁴ : A 47 G 27/02.

(12) DEMANDE DE BREVET D'INVENTION A1

(22) Date de dépôt : 24 mai 1985.

(30) Priorité :

(43) Date de la mise à disposition du public de la demande : BOPI « Brevets » n° 48 du 28 novembre 1986.

(60) Références à d'autres documents nationaux apparentés :

(71) Demandeur(s) : *HEUGA FRANCE S.A.R.L., société à responsabilité limitée.* — FR.

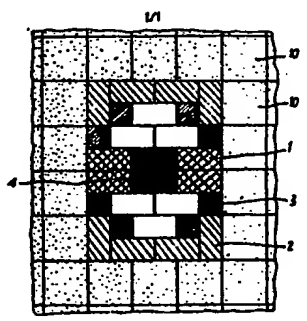
(72) Inventeur(s) : Richard Paul Shillito, Maurice Behar et Jean-Louis Mutte.

(73) Titulaire(s) :

(74) Mandataire(s) : Cabinet Lemoine et Bernasconi.

(54) Tapis de sol modulaire.

(57) Tapis modulaire constitué d'une juxtaposition d'éléments 1, 2, 3, 4 comportant une couche textile aiguilletée ou tuftée solidaire d'une couche d'aplomb bitumineuse et d'une bordure périphérique 10 empêchant les éléments de s'écarter les uns des autres.



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Vente des fascicules à l'IMPRIMERIE NATIONALE, 27, rue de la Convention — 75732 PARIS CEDEX 15

ple tuftée, une couche de liaison, par exemple, bituminée, sur laquelle adhère, par l'intermédiaire d'une couche adhésive, la face inférieure de la couche textile, cette couche de liaison servant à l'isolation et à l'obtention d'un aplomb, et éventuellement une couche inférieure ou film pour le contact direct avec le sol. Ces dalles présentent, par rapport aux moquettes classiques formées de lés de grande longueur, des avantages au niveau du transport, de la pose, de l'interchangeabilité et du remplacement. Cependant, elles donnent au revêtement obtenu une apparence de dallage qui ne peut pratiquement pas être atténuée.

La présente invention se propose de fournir un tapis modulaire ne présentant pas les inconvénients précités et permettant, à prix de revient réduit, d'obtenir un tapis de présentation esthétique très réussie, modifiable, facilement transportable, se prêtant facilement au nettoyage et au remplacement des parties détériorées.

L'invention a pour objet un tapis modulaire, caractérisé en ce qu'il est constitué d'une juxtaposition d'éléments de formes complémentaires de couleurs et/ou de textures variées, chaque élément comportant une couche superficielle de textile fixée sur une couche inférieure plus lourde donnant l'aplomb, telle que par exemple une couche bitumineuse, et une bordure périphérique empêchant un écartement desdits éléments juxtaposés, les uns des autres.

La bordure périphérique peut être constituée d'un cadre en matériau convenable, rigide ou de préférence souple, textile ou non, et, de façon avantageuse, ce cadre peut être fixé sur la périphérie d'une nappe ayant la même forme extérieure que le tapis et formant un fond sur lequel on vient poser les différents éléments individuels du tapis.

Dans une autre forme de réalisation de l'invention, la bordure périphérique peut être constituée simplement de dalles d'un revêtement de sol du type moquette, ou d'autres dalles, et dans ce cas, les dimensions modulaires des éléments peuvent avantageusement être harmonisées

de dalles de moquette, suivant le type de bordure choisi.

D'autres avantages et caractéristiques de l'invention apparaîtront à la lecture de la description suivante faite à titre d'exemple non limitatif et se référant au dessin annexé dans lequel :

la figure 1 représente une vue de dessus d'un tapis selon une première forme de réalisation de l'invention ;

la figure 2 représente une vue en coupe d'un élément de ce tapis ;

la figure 3 représente une vue de dessus d'un tapis selon une autre forme de réalisation de l'invention ;

la figure 4 représente une vue en coupe d'un élément de ce tapis au voisinage de la périphérie.

On se réfère tout d'abord aux figures 1 et 2.

Le tapis selon l'invention comporte 27 éléments basés sur un module rectangulaire. Le module est représenté par les éléments rectangulaires 1 et 2 dont la longueur est égale au double de la largeur. Les autres éléments sont les éléments 3 en forme de carré dont la largeur est égale à la largeur du module 2 et un élément en forme de carré 4 dont la largeur est égale à la longueur des éléments modulaires 1 ou 2. Les modules 1 et 2 ne diffèrent que par leur couleur. A titre d'exemple, le tapis représenté est basé sur trois couleurs, à savoir une couleur correspondant au module 1, une autre couleur correspondant au module 2 et une troisième couleur correspondant aux éléments 3 et 4. La longueur des éléments modulaires 1 ou 2 est de 25 cm.

Les différents éléments 1, 2, 3 et 4 sont simplement juxtaposés par leurs bords découpés de façon rectiligne dans les nappes dont ils proviennent. Les éléments représentés comportent une couche d'usure textile superficielle 5 tuftée sur un dossier primaire en polyester non tissé 6. Cet ensemble adhère par une couche de fixation 7 sur une couche bitumineuse 8 sur laquelle est fixée une

4 à l'intérieur d'un même emballage ou paquet et il peut être avantageux d'offrir au client, dans le paquet, en plus des 27 éléments représentés, quelques éléments supplémentaires lui permettant de remplacer des éléments qui seraient détériorés, au besoin en modifiant l'agencement des éléments.

On se réfère maintenant aux figures 3 et 4.

Dans cette forme de réalisation, on a représenté un tapis comportant 25 éléments. La dimension modulaire est encore constituée d'éléments rectangulaires 13 ayant une longueur égale au double de la largeur. En plus des éléments 13, on trouve des éléments 14 constitués de carrés dont la largeur est égale à la largeur de l'élément 13, des éléments carrés 15 dont la largeur est égale à la longueur de l'élément 13, des éléments triangulaires 16 constitués à partir de la moitié d'un carré équivalent à l'élément 15, un élément circulaire 17 dont le diamètre est égal à la longueur de l'élément 13, des éléments en quart de cercle 18 ayant le même rayon que l'élément 17, des éléments concaves 19 formés à partir d'un triangle analogue aux éléments triangulaires 16 avec une découpe en quart de cercle ayant le même rayon que l'élément circulaire 17, et des éléments 20 obtenus à partir d'un carré équivalent à l'élément 15 dans lequel on a découpé un quart de cercle équivalent à l'élément 18. Le tapis comporte encore un cadre périphérique 21 constitué, par exemple, d'un jonc élastomère recouvert de textile et dont la structure apparaît mieux sur la figure 4.

On voit sur la figure 4 que les éléments du tapis, tels que, par exemple, l'élément 13, sont constitués d'une couche d'usure superficielle de fibres 22 aiguilletée sur un support primaire 23 et fixée par une couche de liaison 24 sur une couche d'aplomb bitumineuse ou PVC 25 sous laquelle est fixée une feuille de polyester-polypropylène non tissé 26. Les différents éléments 13 à 20 reposent sur une nappe souple non tissée 27, de préférence pourvue

REVENDICATIONS

1°/ Tapis de sol modulaire, caractérisé en ce qu'il est constitué d'une juxtaposition d'éléments de formes complémentaires de couleurs et/ou de textures variées, chaque élément comportant une couche superficielle de textile (5, 22) fixée sur une couche inférieure plus lourde donnant l'aplomb (8, 25), et une bordure périphérique (10, 21) empêchant un écartement desdits éléments juxtaposés les uns des autres.

2°/ Tapis selon la revendication 1, caractérisé en ce que la bordure périphérique comporte un cadre (21).

3°/ Tapis selon la revendication 2, caractérisé en ce que ledit cadre (21) est solidaire d'une nappe (27) ayant la même forme extérieure que le tapis et formant un fond sur lequel sont posés les différents éléments individuels du tapis.

4°/ Tapis selon l'une des revendications 2 et 3, caractérisé en ce que ladite bordure (21) est souple.

5°/ Tapis selon la revendication 1, caractérisé en ce que la bordure périphérique est constitué de dalles de revêtement de sol (10), notamment du type moquette, juxtaposées autour du tapis.

6°/ Tapis selon l'une quelconque des revendications 1 à 5, caractérisé en ce qu'il comporte, parmi les éléments, au moins un élément modulaire (1, 2, 13) carré ou rectangulaire dont la longueur est égale au double de la largeur.

7°/ Tapis selon l'ensemble des revendications 5 et 6, caractérisé en ce que l'une des dimensions de l'élément modulaire (1, 2) est égale à, ou est un sous-multiple d'une dimension des dalles de revêtement (10) formant la bordure.

8°/ Tapis selon l'une quelconque des revendications 6 et 7, caractérisé en ce qu'il comporte, en plus des éléments modulaires (1, 2, 13), des éléments ayant des formes comprenant des bords rectilignes, polygonaux et/ou circulaires et notamment carrés, triangles notamment rectangles, losanges.

Fig: 1

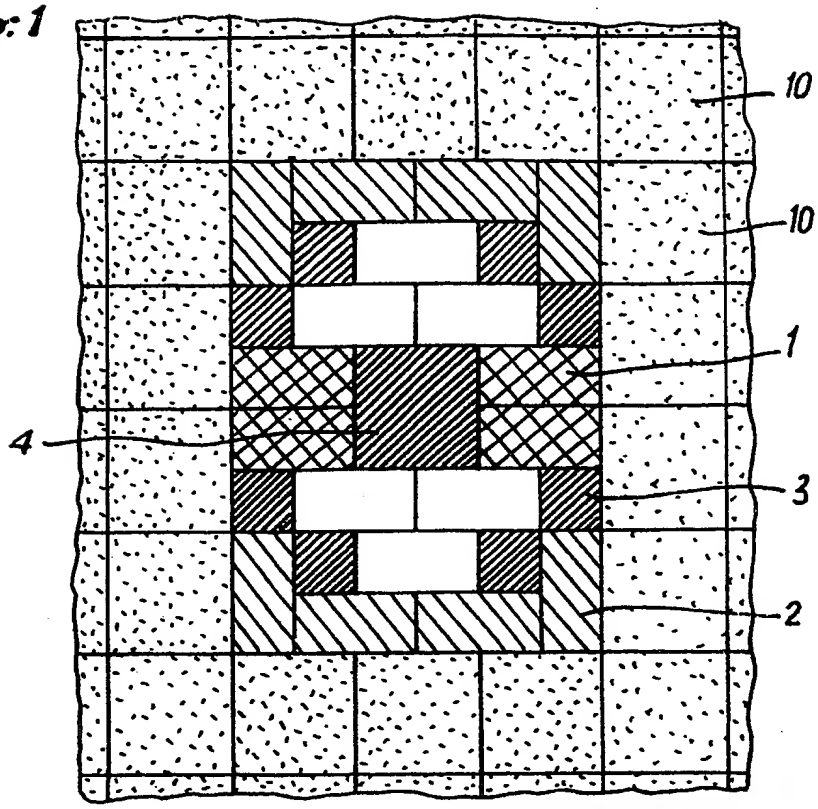


Fig: 2

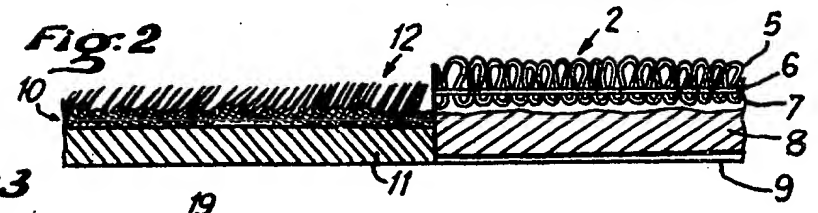


Fig: 3

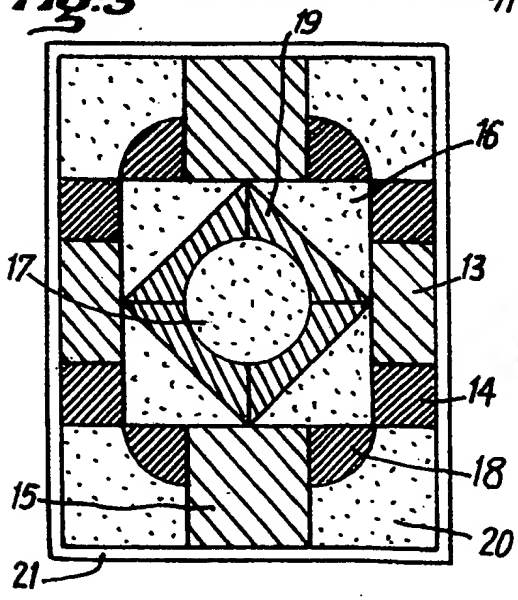
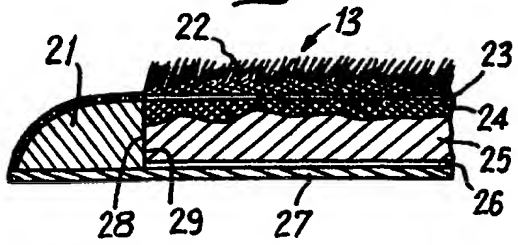


Fig: 4



19 French Republic

National Institute of Industrial Property Paris

11 Publication No. 2 582 210

(Use only if copies are required)

21 National Registration No.: 85 07852

51 Int Cl 4: A 47 G 27/02

12 PATENT APPLICATION A1

22 Filing Date: May 24, 1985

30 Priority

43 Date of release November 28, 1986 of application to the public: BOPI "Patents" No. 48

60 References to other related national documents

71 Applicant(s): Heuga France SARL

72 Inventor: Richard Paul Shillito, Maurice Behar and Jean-Louis Mutte

73 Holder(s):

74 Attorney(s): Lemoine and Bernasconi

54 Modular floor carpets

57 Modular carpet made up of the juxtaposition of elements 1, 2, 3, 4 which consist of a loop-stitched or tufted textile layer bound to a bituminous layer for balance and to a peripheral border 10 which keeps the elements from separating.

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Sale of sections at the IMPRIMERIE NATIONAL 27, rue de la Conventiont - 75732 PARIS CEDEX 16

Modular Floor Carpet

This invention relates to a modular floor carpet and intends to provide the technical means to allow the creation of a carpet which has a beautiful aesthetic appearance, particularly with regard to the diversity and arrangement of colours.

Floor carpets in current use extend as a supple and continuous sheet, and present a number of inconveniences. In the first place, they are heavy, cumbersome and hard to move once they reach a certain size. They are hard to clean and an in-depth cleaning operation requires transporting the carpet. As well, local damage, such as a dirty mark, rip or burn, is hard to repair. Finally, carpets present a fixed aesthetic aspect, once and for all. In addition, they can have a significant price that, when they are laid down on a floor covering, such as wall-to-wall carpeting, is added to the cost of the floor covering, creating a considerable cost increase.

We are already familiar with wall-to-wall modular carpeting consisting of square tiles of generally 50 cm x 50 cm. These tiles generally are comprised of a top layer of heavy-duty textile material, for instance, tufted; a binding layer, for example, bituminous, to which is adhered, by an adhesive layer, the bottom side of the textile layer, and which serves for insulation and balance; and, possibly, there is a bottom layer or film for direct contact with the floor. Relative to the classic moulded wall-to-wall carpeting made of very long textile strips, these tiles offer advantages in shipping, laying down, interchangeability and replacing. However, they give the covering a tiled appearance that cannot be diminished.

This invention proposes to provide a modular carpet which does not present the above-mentioned inconveniences and allows, at a lesser cost price, to obtain a carpet with a successful aesthetic presentation, modifiable, easily transportable, easy-to-clean and in which it is easy to replace the damaged parts.

The purpose of this invention is a modular carpet, characterized by the juxtaposition of elements in complementary colours and/or varied textures, each element comprising a top textile layer fixed on a heavier bottom layer which gives it balance, such as a bituminous layer, and a peripheral border which keeps the above-mentioned juxtaposed elements from separating.

The peripheral border can be made of a frame in a suitable material, rigid or preferably supple, textile or not, and, advantageously, this frame can be affixed on the periphery of a sheet having the same outer shape as the carpet, thus creating a foundation on which the different individual elements of the carpet are laid down.

Alternatively, the peripheral border can simply be made up of tiles of a floor covering such as wall-to-wall carpeting or any other tiles, in which case, there is the advantage that the size of the modular elements can be made the same as that of the said tiles. In this case, depending on the desired effect, the carpet elements can be given the same height, or higher or lower than that of the tiles of the floor covering creating the peripheral border.

The peripheral shape of the carpet can vary, but a rectangular or square shape is preferable, in accordance with the shape of most of the usual carpets.

The shape of the carpet elements can be, preferably, based on the square or rectangular module. The elements, for example, can be formed by the rectangular module itself, by a double module forming a square, by a half-module forming a square, as well as, eventually, by triangles and diamonds defined by that module.

Thus, one can obtain a carpet that has a very beautiful appearance by using simple rectangular modules to which can possiobly be joined square half-modules and double modules also square.

However, it can also be anticipated that peripheral elements or parts of peripheral elements could have a curved shape, for example, they could be circular.

The cutting out of elements from their original sheeting has to be very carefully done, be it with a perforator or with a laser.

The smallest size of an element, preferably, should not be smaller than 12.5 cm and, in fact, it is preferable that it should not be less than 25 cm. The largest size of an element will depend on the size of the carpet but it is preferable that it not be larger than 50 cm.

For sales, packaging and shipping, it is an advantage that the carpet can be packed by stacking the component elements so that the user can then easily put it together at home. To this package, the peripheral border is added, which may be rolled up or put together in a package of wall-to-wall tiles, according to what type of border was chosen.

Other advantages and characteristics of this invention will appear while reading the following description, which is meant as a non restrictive example, and is in reference to the attached drawing in which:

figure 1 shows a view from above of a carpet in a first design of how this invention can be put together;

figure 2 shows a view of a cross section of a carpet element;

figure 3 shows a view from above of a carpet in another design allowed by the invention;

figure 4 shows a view of a cross section of an element situated near the carpet periphery.

First we refer to figures 1 and 2.

The carpet, according to the invention, comprisees 27 elements based on a rectangular module. The module shows rectangular elements 1 and 2 which are twice as long as they are wide. The other elements are square elements 3 which are as wide as module 2, and a square element 4 which is as wide as modular elements 1 and 2 are long. Modules 1 and 2 only differ in

colour. As an example, the carpet shown is designed on a three-colour scheme, that is, one colour corresponds to module 1, another one to module 2 and a third colour corresponds to elements 3 and 4. The length of modular elements 1 or 2 is 25 cm.

Different elements 1, 2, 3 and 4 are simply juxtaposed by their borders cut out in a straight line from their original sheeting. The elements shown comprise a top layer of a tufted heavy-duty textile 5 placed on a primary backing of non woven polyester 6. All is adhered by a binding layer 7 to a bituminous layer 8 on which is attached a non woven polyester-polypropylene sheet 9. The total thickness of element 2, identical in its structure to elements 1, 3, and 4, is 11 mm.

The juxtaposition of these elements is completely rigorous and it is easily arrived at by a judicious disposition of the different elements, not only to obtain a beautiful aesthetic effect, but also to make the notion of juxtaposed elements disappear. The carpet then appears to the eye as having been made practically from a single piece.

The rectangular periphery of the carpet is surrounded by a floor covering made up of wall-to-wall carpet tiles 10 of a total thickness of 8 mm and having a bituminous balance layer 11 and a top textile layer 12. These classical tiles 10, which have an excellent balance, surround the carpet completely and, as in the example above, have a width that is, preferably, the multiple of a measurement of modular element 1 or 2. The cohesion of the covering 10 ensures a perfect support for elements 1, 2, 3 and 4 in tight juxtaposition, the elements having been nonetheless simply laid down on the underlying floor space.

It would of course be possible to attach the above-mentioned elements to the floor, for example by gluing, but such an attachment is almost always useless and inconvenient as it does not allow for the easy movement of the elements. In fact, it is an advantage that elements 1, 2, 3 and 4 can be easily moved by the user, to be cleaned, to be replaced by new ones in case of damage, or still, to be rearranged since it would be easy for the user to modify the carpet design using the same elements in a different way.

For sales and shipping, it can be useful to stack the different elements 1, 2, 3 and 4 inside the same package or bundle and it can also be an advantage to offer the customer, in the same bundle, in addition to the 27 shown elements, some supplementary elements that will allow for replacement in case of damage, or, if need be, for modifying the arrangement of the elements.

We now refer to figures 3 and 4.

In this sort of design, a carpet comprising 25 elements is shown. The size of the modules is again determined by rectangular elements 13, which are twice as wide as they are long. In addition to elements 13, we find elements 14 consisting of squares which are as wide as element 13; square elements 15 which are as wide as element 13 is long; triangular elements 16 which are the size of half a square in element 15; a circular element 17 with a diameter equal to the length of element 13; quarter circle elements 18 which have the same radius as element 17; concave elements 19 shaped as a triangle similar to triangular elements 16 with a quarter circle cut-out having the same radius as circular element 17; and elements 20 obtained from a square equivalent to element 15 in which a quarter circle equivalent to element 18 has been cut out. The carpet once again comprises a peripheral frame 21 made, for example, by an elastomeric rope covered with textile and whose structure appears more clearly in figure 4.

Figure 4 shows that carpet elements, such as, for example, element 13, are made of a top fiber heavy-duty layer 22 stitched onto a primary backing 23 and attached by a binding layer 24 onto a bituminous balance layer or PVC/25 under which is attached a non woven polyester-polypropylene sheet 26. The different elements 13 to 20 lie on supple non woven sheeting 27, preferably having on its inner side a non-skid layer (not shown). Sheet 27 supports, on its rectangular periphery, rope 21 which forms the peripheral frame. Rope 21 can be attached, for example, by gluing or welding on to sheet 27. The rope shows a rounded outer surface but presents a straight vertical inner border 28 which adjusts to the straight vertical border 29 of

adjacent element 13.

The invention can also be put together in other designs. Thus, juxtaposed carpet elements can be arranged not only according to colour or motifs different from one another but also in different structures or thicknesses depending on the aesthetic characteristics that are desired.

Likewise, the peripheral supporting elements can be put together in a different way. Thus, for example, the peripheral rope 21 could be replaced by a rectangular textile frame or a frame in some other material, preferably one that has a certain suppleness to allow it to be rolled. The width of this frame can vary from as narrow as rope 21 to a much greater width, for example, one equivalent to that of an element in the carpet.

In yet another design, the peripheral frame could be omitted, sheet 27 being affixed to a means of attachment, preferably removable, at least of the peripheral elements, for example, elements 15, 20, 14, 13, in the case of figure 3; these elements would also create the border. This could be done, for example, by gluing or, preferably, by using VELCRO-type bands.

CLAIMS

1. Modular floor carpet, characterized in that it consists of a juxtaposition of elements in complementary colours and /or varied textures, each element consisting of a top textile layer (5, 22) attached to a heavier bottom balance layer (8, 25), and a peripheral border (10, 21) which keeps the above-mentioned juxtaposed elements from separating.

2. Carpet that, as per claim 1, is characterized in that the peripheral border consists of a frame (21).

3. Carpet that, as per claim 2, is characterized in that the above-mentioned frame (21) is bound to sheeting (27) having the same outer shape than the carpet and creating a foundation on which are laid out the different individual elements of the carpet.

4. Carpet that, as per claims 2 and 3, is characterized in that the above-mentioned border (21) is supple.

5. Carpet that, as per claim 1, is characterized in that the peripheral border consists of floor tiles (10), particularly wall-to-wall type, juxtaposed around a carpet.

6. Carpet that, as per any of the claims 1 to 5, is characterized in that it comprises, among its elements, at least one square or rectangular modular element (1, 2, 13) which is twice as wide as it is long.

7. Carpet that, as per claims 5 and 6 jointly, is characterized in that one of the sizes of the modular element (1, 2) is equal to, or is a submultiple of one of the measurements of the covering tiles (10) forming the border.

8. Carpet that, as per either claims 6 or 7, is characterized in that it comprises, in addition to modular elements (1, 2, 13), elements which have rectilineal borders, polygonal and/or circular and particularly square, triangles, particularly rectangles, diamonds.

9. Carpet that, as per one of the claims 1 to 8, is characterized in that the elements which comprise a textile layer (5, 22) bound on top of a bituminous layer or PVC (8, 25), said textile layer being tufted or loop-stitched.

10. Carpet that, as per any of claims 1 to 9, is characterized in that the smallest

measurement in any of its elements is not less than 12.5 cm and not greater than 50 cm.

11. Carpet that, as per any of the claims 1 to 10, is characterized in that it is shown as being packaged by the stacking the elements it is made up of, the border being shown separately.